Amendments to the Drawings:

None.

Remarks

This application has been carefully reviewed in light of the Office Action of November 8, 2004. Claims 8-10 and 12-22 have been withdrawn. Claim 1 has been amended. Claims 1-22 are currently pending. Applicant requests further review and reconsideration in light of the following remarks.

Claims 1 and 11 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,827,235 (Beaver). This rejection is respectfully traversed in light of the present amendment.

Beaver discloses (see Figure 4) a dispenser 20 for topical medication having a rod 28 disposed in a housing 22 which carries a piston 30. The piston separates upper and lower reservoirs 44 and 48, respectively. The upper reservoir 44 can be filled with a medication such as creams and powders (see column 1, lines 16). The medication is subsequently dispensed by depressing a thumb rest 26 attached to the rod, causing the piston to pump the medication out through the lower reservoir, a nozzle reservoir 52, and a nozzle 58.

There is no structure disclosed in Beaver that would allow the medication to be stored in a pressurized condition. The piston 30 controls the flow of medication only to the extent that the medication is so viscous that it would require force to discharge it. In fact, if the medication were to be stored in a pressurized condition, it would freely flow out of the check valves 36 and 50 regardless of the position or movement of the piston. Furthermore, downward motion of the piston which would create any substantial pressure build up in the housing 22 necessarily results in discharge of the medication and does not permit its storage in pressurized condition. In contrast, in the present invention, the reservoir is charged with pressurized fluid which is then contained and prevented from flowing by the closed valve. When the injection nozzle is placed into a hole drilled in a tree, the valve is opened allowing the fluid to discharge into the tree. The pressure differential between the reservoir and the outside environment then causes the fluid to discharge

without additional action by the user.

Claim 1 has been rewritten to more clearly point out this distinction in structural terms. Specifically, claim 1 now recites that the control valve selectively prevents or allows flow out of the nozzle by blocking or permitting fluid communication between the reservoir and the nozzle, respectively. Beaver clearly lacks such a valve. Accordingly, it is submitted that Beaver fails to disclose every element of amended claim 1 and the rejection should be withdrawn.

Claim 11 depends from claim 1 and is thus believed to be allowable for the reasons stated above. Furthermore, claim 11 recites "an overpressure plug disposed in fluid communication with said housing which normally seals a relief vent formed in said housing, wherein said overpressure plug is forced out of said relief vent when the pressure of said fluid exceeds a predetermined level".

The Examiner has indicated that reservoir valve 46 is considered to be an overpressure plug. Applicant respectfully disagrees. In structural terms the valve 46 is not a plug disposed in a relief vent, but rather a flapper-type valve which seals against the inner surface of the housing 22 and covers the relief vent. Functionally, valve 46 is not an overpressure relief mechanism which opens when fluid pressure exceeds a predetermined level. Rather, it is a vacuum relief device which allows inward air flow when the fluid pressure falls too low (i.e. when a vacuum is created in upper reservoir 44). This is necessary for the operation of the piston-type pump disclosed by Beaver, as described at column 3, lines 63-66. The injector of the present invention does not require such a mechanism, and the overpressure plug is provided as a safety device, as discussed at paragraph [0042] of the specification.

Claims 1-3 and 6 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,958,622 (Selenke). This rejection is respectfully traversed in light of the present amendment.

Selenke discloses a syringe (see Figure 1) including a barrel 10 and a plunger

piston 11. It is noted that this device is not an injector at all - it is intended to remove a fluid sample from a patient, as noted at column 4, lines 12-16, and one embodiment actually includes a mechanism (see Figure 2) to prevent the plunger 11 from being depressed once it is withdrawn. This point aside, the device of Selenke is substantially the same in operation to the dispenser of Beaver. That is, movement of the piston causes a fluid to be drawn into or discharged from the barrel 10.

Like Beaver, Selenke fails to disclose or suggest that fluid may be stored in the barrel 10 in a pressurized condition. In fact, if the fluid were to be pressurized, for example by depressing the plunger, it would freely flow out of the needle 12 in an uncontrolled fashion. Applicant concedes that safety cap 34 is disclosed to have a fluid-tight connection to the collar 36, and this might prevent escape of fluid from the entire syringe. However, this structure could hardly be considered to be a valve for selectively stopping and starting fluid flow. As noted above with respect to the rejection over Beaver, the present invention provides a reservoir which is charged with pressurized fluid. That fluid is then contained and prevented from flowing by the closed valve. When the nozzle is placed into a hole drilled in a tree, the valve is opened thus allowing the fluid to discharge into the tree. No additional action is required by the user to complete the injection. Accordingly, it is submitted that Selenke fails to disclose every element of amended claim 1 and the rejection should be withdrawn.

Claims 2-3 and 6 depend from claim 1 and are thus believed to be allowable for the reasons stated above.

Applicant appreciates the indication that claims 4, 5, and 7 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, in light of the above arguments that claims 1-7 and 11 are allowable, the rewriting of claims 4, 5, and 7 is not believed to be necessary.

In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration of the objections and rejections is requested. Allowance of claims 1-7 and

11 at an early date is solicited.

Respectfully submitted,

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